

WHAT IS CLAIMED IS:

1. An electrographic printer, comprising:
an imaging member, a toning shell located adjacent the imaging member and defining an image development area therebetween, through which developer is passed; and
5 a rotating magnetic core comprising a plurality of magnetic poles arranged such that adjacent poles are of opposite polarity, the magnetic core located adjacent the toning shell, subjecting the developer to magnetic pole transitions at a rate exceeding 257 pole transitions per second as measured from the frame of reference of a stationary observer.
2. The electrographic printer of claim 1, the toning shell comprising a toning shell
10 voltage, the imaging member comprising a developed image, the developed image comprising a developed image voltage, the toning shell voltage minus the developed image voltage being proportional to a toner charge to mass ratio of the developer cubed.
3. The electrographic printer of claim 1, the toning shell comprising a toning shell
15 voltage, the imaging member comprising a developed image, the developed image comprising a developed image voltage, the toning shell voltage minus the developed image voltage being proportional to an average charge per toner particle of the developed image cubed.
4. The electrographic printer of claim 1, the developer comprising surface treated toner.
5. The electrographic printer of claim 1, the developer comprising polyester toner.
- 20 6. The electrographic printer of claim 1, the developer comprising surface treated polyester toner.
7. The electrographic printer of claim 1, the developer comprising toner and carriers, the toner comprising a toner charge, the carrier comprising a carrier charge, the toner charge being proportional to the carrier charge.
- 25 8. The electrographic printer of claim 1, the developer comprising carrier particles, developer comprising a measured dielectric length less than 3 times the average diameter of the carrier particles.

9. An electrographic printer, comprising:
an imaging member, a toning shell located adjacent the imaging member and defining an
image development area therebetween, through which developer is passed;
a rotating magnetic core comprising a plurality of magnetic poles arranged such that
5 adjacent poles are of opposite polarity, the magnetic core located adjacent the toning shell;
the toning shell comprising a toning shell voltage;
the imaging member comprising a developed image;
the developed comprising a developed image voltage; and
the toning shell voltage minus the imaging voltage being proportional to a toner charge to
10 mass ratio of the developer cubed.
10. The electrographic printer of claim 9, the toning shell comprising a toning shell
voltage, the imaging member comprising a developed image, the developed image
comprising a developed image voltage, the toning shell voltage minus the developed image
voltage being proportional to an average charge per toner particle of the developed image
15 cubed.
11. The electrographic printer of claim 9, the developer comprising surface treated toner.
12. The electrographic printer of claim 9, the developer comprising polyester toner.
13. The electrographic printer of claim 9, the developer comprising surface treated
polyester toner.
- 20 14. The electrographic printer of claim 9, the developer comprising toner and carriers,
the toner comprising a toner charge, the carrier comprising a carrier charge, the toner charge
being proportional to the carrier charge.
15. The electrographic printer of claim 9, the developer comprising carrier particles, the
developer comprising a measured dielectric length less than 3 times the average diameter of
25 the carrier particles.
16. An electrographic printer, comprising:

an imaging member, a toning shell located adjacent the imaging member and defining an image development area therebetween, through which developer is passed;
a rotating magnetic core comprising a plurality of magnetic poles arranged such that adjacent poles are of opposite polarity, the magnetic core located adjacent the toning shell;
5 the toning shell comprising a toning shell voltage;
the imaging member comprising a developed image;
the developed image comprising a developed image voltage; and
the toning shell voltage minus the developed image voltage being proportional to average charge per toner particle of the developed image cubed.

10 17. The electrographic printer of claim 16, comprising subjecting the developer to magnetic pole transitions at a rate exceeding 257 pole transitions per second as measured from the frame of reference of a stationary observer.

18. The electrographic printer of claim 16, the toning shell comprising a toning shell voltage, the imaging member comprising a developed image, the developed image
15 comprising a developed image voltage, the toning shell voltage minus the developed image voltage being proportional to a toner charge to mass ratio of the developer cubed.

19. The electrographic printer of claim 16, the developer comprising surface treated toner.

20. The electrographic printer of claim 16, the developer comprising polyester toner.

20 21. The electrographic printer of claim 16, the developer comprising surface treated polyester toner.

22. The electrographic printer of claim 16, the developer comprising toner and carriers, the toner comprising a toner charge, the carrier comprising a carrier charge, the toner charge being proportional to the carrier charge.

25 23. The electrographic printer of claim 16, the developer comprising carrier particles, the developer being comprising a measured dielectric length less than 3 times the average diameter of the carrier particles.

24. An electrographic printer, comprising:

an imaging member, a toning shell located adjacent the imaging member and defining an image development area therebetween, through which developer is passed;

a rotating magnetic core comprising a plurality of magnetic poles arranged such that

5 adjacent poles are of opposite polarity, the magnetic core located adjacent the toning shell; and

the developer comprising toner and carriers, the toner comprising a toner charge, the carrier comprising a carrier charge, the toner charge being proportional to the carrier charge.

25. The electrographic printer of claim 24, the toning shell comprising a toning shell

10 voltage, the imaging member comprising a developed image, the developed image comprising a developed image voltage, the toning shell voltage minus the developed image voltage being proportional to a toner charge to mass ratio of the developer cubed.

26. The electrographic printer of claim 24, the toning shell comprising a toning shell voltage, the imaging member comprising a developed image, the developed image

15 comprising a developed image voltage, the toning shell voltage minus the developed image voltage being proportional to an average charge per toner particle of the developed image cubed.

27. The electrographic printer of claim 24, the developer comprising surface treated toner.

20 28. The electrographic printer of claim 24, the developer comprising polyester toner.

29. The electrographic printer of claim 24, the developer comprising surface treated polyester toner.

30. The electrographic printer of claim 24, the developer comprising carrier particles, developer comprising a measured dielectric length less than 3 times the average diameter of
25 the carrier particles.

31. An electrographic printer, comprising:

an imaging member, a toning shell located adjacent the imaging member and defining an image development area therebetween, through which developer is passed;
a rotating magnetic core comprising a plurality of magnetic poles arranged such that adjacent poles are of opposite polarity, the magnetic core located adjacent the toning shell;
5 and
the developer comprising carrier particles, the developer comprising a measured dielectric length that is less than 3 times the average diameter of the carrier particles.

32. The electrographic printer of claim 31, the toning shell comprising a toning shell voltage, the imaging member comprising a developed image, the developed image
10 comprising a developed image voltage, the toning shell voltage minus the developed image voltage being proportional to a toner charge to mass ratio of the developer cubed.

33. The electrographic printer of claim 31, the toning shell comprising a toning shell voltage, the imaging member comprising a developed image, the developed image
15 comprising a developed image voltage, the toning shell voltage minus the developed image voltage being proportional to an average charge per toner particle of the developed image cubed.

34. The electrographic printer of claim 31, the developer comprising surface treated toner.

35. The electrographic printer of claim 31, the developer comprising polyester toner.

20 36. The electrographic printer of claim 31, the developer comprising surface treated polyester toner.